

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION GDR-7

Effective February 1, 2004
Revised April 1, 2004

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Overhead Doors, Non-impact and Impact Resistant, as manufactured by:

Overhead Door Corporation
1900 Crown Drive
Farmers Branch, Texas 75234-6028
(800) 972-1730

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation. Installation instructions and the appropriate shop drawings for the particular model, as shown in Tables 1 - 4, shall be provided and available on the job site during installation.

PRODUCT DESCRIPTION

General: Overhead steel garage doors are sectional or roll-up overhead doors constructed from galvanized steel with a baked on polyester finish. Doors may be wood grain embossed or smooth finish and may be in Standard, Flush, or Ranch styles. Doors may also be insulated. Model description, dimensions, drawing number, allowable design pressure rating and reinforcement are shown in Tables 1 - 3 for non-impact rated assemblies and Table 4 for impact rated assemblies.

Reinforcement: The doors are reinforced with hat shaped galvanized steel HS strut sections, tubes or C-channels installed horizontally on the back side of the door. Some doors may also be reinforced vertically with one or more removable Vertical Windload Posts which attach to the header and to the floor. If Vertical Windload Posts are used for reinforcement, a Hurricane Activation Label shall be attached to the garage door describing the method of attachment.

Product Identification: A label will be affixed to the garage door. The label shall include the manufacturer's name, series and model number, and the allowable design pressure rating.

LIMITATIONS

Design Pressure Rating: Each model door may have multiple design pressure ratings based upon the type of horizontal, vertical, and end reinforcing that is used. To attain the specified design pressure ratings and impact resistance, doors must be installed and reinforced according to the appropriate shop drawing shown in Tables 1 - 4. Doors using the Vertical Windload Post must have the system activated to attain their specified allowable design pressure rating.

Impact Resistance: The door assemblies shown in Tables 1 - 3 have not been tested for impact resistance. The door assemblies shown in Table 4 satisfies the Texas Department of Insurance's criteria for protection from windborne debris and do not need to be protected with an impact protective system. Impact resistive doors were not tested with optional glass panes.

INSTALLATION INSTRUCTIONS

Doors shall be installed according to the appropriate Overhead Door shop drawing specified for the particular model and design pressure shown in Tables 1 - 4. Doors shown attached directly to wood or masonry jamb, or doors attached to an exterior 2" X 6" jamb shall use the type and number of fasteners shown in the Overhead Door "Jamb Detail" shop drawing specified in Tables 1 - 4. The top attachment bracket for either type of Vertical Windload Post shall be attached to the header with a minimum of four $\frac{5}{16}$ " X $1\frac{3}{4}$ " lag screws. The floor plate for the Removable Vertical Windload Post shall be attached with a minimum of four (4) $\frac{3}{16}$ " x $\frac{7}{8}$ " mushroom head anchors.

Note: The manufacturer's installation instructions and garage door drawings shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC).

Table 1 - Non-Impact Rated Assemblies^{1,2}

Model Series	Door Width (Max.)	Door Height (Max.)	Drawing Number	Design Pressure (PSF)	Reinforcing	Jamb Detail
190/490	9'-0"	8'-0"	D-409959 Rev. A 11-12-02	±31	HS1 & HS2	D-409783
190/490	10'-0"	8'-0"	D-409977 Rev. C 08-04-03	±37	HS0 & 1 Vertical Post	D-409783
190/490	16'-0"	8'-0"	D-409960 Rev. E 08-04-03	±37	HS0 & 2 Vertical Posts	D-409783
190/490	18'-0"	8'-0"	D-409978 Rev. C 08-04-03	±37	HS0 & 3 Vertical Posts	D-409783

Notes: ¹ The garage door assemblies listed in Table 1 do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These garage door assemblies will need to be protected with an impact protective system in the Inland I and Seaward Zones.

² Doors are tested with top panel sections glazed with $\frac{1}{8}$ " DSB glass.

Table 2 - Non-Impact Rated Assemblies^{1,2}

Model Series	Door Width (Max.)	Door Height (Max.)	Drawing Number	Design Pressure (PSF)	Reinforcing	Jamb Detail
390	9'-0"	8'-0"	D-409894 Rev. C 11-12-02	±26	HS1	D-409783
390	9'-0"	8'-0"	D-410019 Rev. A 11-12-02	±50	HS2 & HS3	D-409783
390	10'-0"	8'-0"	D-409962 Rev. A 11-12-02	±26	HS1	D-409783
390	10'-0"	8'-0"	D-409966 Rev. A 11-12-02	±31	HS2	D-409783
390	16'-0"	8'-0"	D-409890 Rev. C 11-12-02	±22	HS2	D-409783
390	16'-0"	8'-0"	D-408813 Rev. C 11-12-02	±25	HS3	D-409783
390	16'-0"	8'-0"	D-409891 Rev. C 11-12-02	±26	HS2 & 4x2.5 Channel	D-409783
390	16'-0"	8'-0"	D-409434 Rev. D 1-7-03	±27.5	HS1 & 1 Vertical Post	D-409783
390	16'-0"	8'-0"	D-409892 Rev. C 11-12-02	±31	HS3 & 4x2.5 Channel	D-409783
390	16'-0"	8'-0"	D-410025 Rev. A 11-12-02	±50	HS1 & 3 Vertical Posts	D-409783
390	16'-0"	8'-0"	D-410026 Rev. A 11-12-02	±37	HS1 & 2 Vertical Posts	D-409783
390	18'-0"	8'-0"	D-409435 Rev. D 8-04-03	±23	HS1 & 1 Vertical Post	D-409783
390	18'-0"	8'-0"	D-409893 Rev. B 11-12-02	±31	HS3 & 4x2.5 Channels	D-409783
390	18'-0"	8'-0"	D-409432 Rev. D 8-04-03	±35.1	HS1 & 2 Vertical Posts	D-409783
390	18'-0"	8'-0"	D-410037 Rev. A 11-12-02	±50	HS2 & 3 Vertical Posts	D-409783
390	9'-0"	8'-0"	D-408951 Rev. B 11-12-02	±37	HS1 & HS2	D-409783

Note: ¹ The garage door assemblies listed in Table 2 do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These garage door assemblies will need to be protected with an impact protective system in the Inland I and Seaward Zones.

² Doors are tested with top panel sections glazed with 1/8" DSB glass.

Table 3 - Non-Impact Rated Assemblies^{1,2}

Model Series	Door Width (Max.)	Door Height (Max.)	Drawing Number	Design Pressure (PSF)	Reinforcing	Jamb Detail
180/280/381	8'-0"	8'-0"	D-409338 Rev. E 11-12-02	±25	HS0 & HS1	D-409783
280 & 180	9'-0"	8'-0"	D-409339 Rev. B 3-18-98	±17	HS0 & HS1	D-409783
280 & 180	9'-0"	8'-0"	D-409333 Rev. B 3-13-98	±20	HS0 & HS2	D-409783
180/280/381	9'-0"	8'-0"	D-409340 Rev. E 11-12-02	±25	HS0 & HS2	D-409783
180/280/381	16'-0"	8'-0"	D-409335 Rev. F 1-7-03	±25	HS0 & HS1 & 1 Vertical Post	D-409783
180/280/381	16'-0"	8'-0"	D-409341 Rev. F 1-7-03	±37	HS2 & 2 Vertical Posts	D-409783
280 & 180	18'-0"	8'-0"	D-409342 Rev. C 4-8-98	±17	HS1 & 1 Vertical Post	D-409783
280 & 180	18'-0"	8'-0"	D-409343 Rev. C 4-8-98	±20	HS2 & 1 Vertical Post	D-409783
180/280/381	18'-0"	8'-0"	D-409344 Rev. F 1-7-03	±25	HS2 & 2 Vertical Posts	D-409783
180/280/381	18'-0"	8'-0"	D-409337 Rev. E 1-7-03	±37	HS1 & 3 Vertical Posts	D-409783
180/281/381	9'-0"	8'-0"	D-409887 Rev. E 12-4-02	±22	HS1 & HS2	D-409783
180/281/381	9'-0"	8'-0"	D-410017 Rev. A 11-12-02	±50	HS3	D-409783
180/281/381	10'-0"	8'-0"	D-409974 Rev. A 11-12-02	±26	HS2	D-409783
180/281/381	10'-0"	8'-0"	D-409975 Rev. B 11-12-02	±31	HS2	D-409783
180/281/381	16'-0"	8'-0"	D-409884 Rev. C 11-12-02	±22	HS2 & 4x2.5 Channel	D-409783
180/281/381	16'-0"	8'-0"	D-408832 Rev. E 11-12-02	±25	HS1 & 2x3 Tube Strut	D-409783
180/281/381	16'-0"	8'-0"	D-409885 Rev. C 11-12-02	±26	HS2 & 4x2.5 Channels	D-409783
180/281/381	16'-0"	8'-0"	D-409886 Rev. C 11-12-02	±31	HS3 & 4x2.5 Channels	D-409783

Table 3 (Continued) - Non-Impact Rated Assemblies^{1,2}

Model Series	Door Width (Max.)	Door Height (Max.)	Drawing Number	Design Pressure (PSF)	Reinforcing	Jamb Detail
180/281/381	16'-0"	8'-0"	D-410024 Rev. A 11-12-02	±50	HS1 & 3 Vertical Posts	D-409783
180/281/381	18'-0"	8'-0"	D-409888 Rev. B 11-12-02	±31	HS3 & 4x2.5 Channels	D-409783
180/281/381	18'-0"	8'-0"	D-410036 Rev. B 1-7-03	±50	HS2 & 3 Vertical Posts	D-409783
180/280/381	9'-0"	8'-0"	D-408950 Rev. B 11-12-02	±37	HS2	D-409783

Note: ¹ The garage door assemblies listed in Table 3 do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These garage door assemblies will need to be protected with an impact protective system in the Inland I and Seaward Zones.

² Doors are tested with top panel sections glazed with $\frac{1}{8}$ " DSB glass.

Table 4 - Impact Rated Assemblies¹

Model Series	Door Width (Max.)	Door Height (Max.)	Drawing Number	Design Pressure (PSF)	Reinforcing	Jamb Detail
180	9'-0"	8'-0"	D-408775 Rev. F 5-29-01	±46.7	HS3	C-409431
180	16'-0"	8'-0"	D-408804 Rev. E 5-29-01	±46.7	HS3 & 4x2 Tube Strut	C-409431
188	9'-0"	8'-0"	D-410129 Rev. 6-19-03	±60	HS3	D-410128
188	16'-0"	8'-0"	D-410130 Rev. 7-7-03	±60	HS2 3 Vertical Posts	D-410128
424	10'-2"	16'-1"	D-408776 Rev. E 10-29-97	±50	HS3	C-409431
424	14'-2"	16'-1"	D-408806 Rev. C 2-20-98	±50	HS3 & 4x2 Tube Strut	C-409431
610	10'-0"	24'-0"	D-307635 Rev. G 2-20-98	±50	Roll-up Door - Skin Only	C-409431

Note: ¹ Doors were not tested with glazing. Garage doors listed in Table 4 satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the Inland I zone and the Seaward zone. The door assemblies passed Missile Level C specified in ASTM E 1996-99. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.